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Capucine Autret

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EXAMINER

JIANG, YONG HANG

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/506,951	Applicant(s) AUTRET ET AL.	
	Examiner YONG HANG JIANG	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/27/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendment filed 10/6/2009 has been entered. Claims 20, 30, 36, and 42 are amended. Claims 20-44 are pending.

Response to Arguments

Applicant's arguments with respect to claim 20-44 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 20-24, 26-27, 30-34, 36-40, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. (US 4,529,980) in view of Heitschel et al. (US 5,576,701), and further in view of Marino et al. (US 6,026,165).

Regarding claim 20, Liotine discloses a method for reprogramming a plurality of bidirectional objects belonging to an installation (via two objects being transmitter 9 and receiver 30 used on a garage door opening system, See Col. 1, lines 55-64), said objects containing a common key provided to all objects of the installation (via code stored on non-volatile memories 34 and 13, See Fig 1 and Col. 4, lines 40-61 and Col. 5, lines 30-34), at least two of the plurality of objects being paired to allow sending of a command from the first object to the second object (via transmitter 9 and receiver 39 paired by being used together, See Col. 2, lines 62-64) and, when both objects contain the common key, execution of the command by the second object (via transmitter 9 and receiver 39 can be used to remotely control a garage door, See Col. 1, lines 60-61), the method providing for an object to be excluded from the paired objects without reprogramming the pairing (inherent, by not using a transmitter together with a paired receiver), wherein the method comprises:

providing a new common key to all the objects of the installation which are not to be excluded (via program mode switch 41 on receiver 39 is closed, a new code is generated and stored on memory 34 and then transfer the new code to transmitter 9 via light emitting diode 36, See Col. 4, lines 40-61).

But Liotine et al. did not specifically disclose when a command is sent from one object to another object with which it is paired, verifying that the two objects contain the

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new common key; and refusal by the other object to execute the command if the two objects do not contain the new common key, although the objects are paired.

Heitschel et al. teach a method of operating a door actuating system using a remote transmitter (24). The remote transmitter (24) transmits a door actuation signal comprising a sequence of coded words, which must match a sequence of allowable coded words stored in a controlled unit (38) of the actuating system in order to operate the door. (See Col. 3, lines 38-56)

From the teachings of Heitschel et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Liotine et al. to include verifying that the two objects contain the new common key when a command is sent from one object to another object with which it is paired; and refusal by the other object to execute the command if the two objects do not contain the new common key, although the objects are paired in order to prevent unauthorized commands from other transmitters.

The combination of Liotine and Heitschel did not specifically disclose the two objects being paired when a first object has learned an identifier of a second object, to allow sending of a command from the first object to the second object; and keeping in the memory of each object the pairing information of identifiers of other objects to which the object is paired.

Marino teaches secure communications in a wireless system. The wireless system provides secure communications by first pairing two objects, the objects are paired when the first object has learned the identifier of the second object, and keeping

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in the memory of identifiers of other objects to which the object is paired. (See the Abstract and Col. 3, line 55 to Col. 4, line 29)

From the teachings of Marino, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine and Heitschel to include the two objects being paired when a first object has learned an identifier of a second object, to allow sending of a command from the first object to the second object; and keeping in the memory of each object the pairing information of identifiers of other objects to which the object is paired as taught by Marino to provide secure communications in a wireless system, thereby enhancing security.

Regarding claim 21, the combination of Liotine et al. and Heitschel et al. and Marino et al disclose the claimed invention wherein Marino discloses the step of verifying for two given objects is carried out only when a command is sent after the new common key was provided (See Col. 4, lines 14-29).

Regarding claim 22, Liotine et al. disclose the step of providing of the new common key comprises: generating a new common key (via program mode switch 41 on receiver 39 is closed, a new code is generated and stored on memory 34); and transmitting the generated new common key (via light emitting diode 36). (See Col. 4, line 40-61; and Col. 5, lines 16-34)

Regarding claim 23, Liotine et al. disclose the step of generation is carried out using a single object (via receiver 30 generates new code and stored on memory 34). (See Col. 4, line 40-61)

Regarding claim 24, Liotine et al. disclose the step of generation is carried out using two objects (via receiver 30 generates new code and the new code is transmitted to transmitter 9). (See Col. 4, line 40-61; and Col. 5, lines 16-34).

Regarding claim 26, Liotine et al. disclose the step of transmission comprises a point-to-point transmission (via light emitting diode 36 to programming signal receiver 21).

Regarding claim 27, Liotine et al. disclose the point-to-point transmission comprises an action by the user on each point (via closing program mode switch 41 on receiver 30 and placing transmitter 9 in close proximity to the receiver 30). (See Col. 4, lines 40-61)

Regarding claims 30 and 36, claims 30 and 36 are computer program product claims for the invention of claim 20; therefore they are rejected for the same reasons as claim 20 above.

Regarding claim 31, the combination of Liotine et al., Marino, and Heitschel et al. disclose the structural elements of the claimed invention, wherein Heitschel discloses the routine of verifying for a given pairing is implemented only when a command is received (See Col. 3, lines 46-50).

Regarding claim 32, the combination of Liotine et al., Marino, and Heitschel et al. disclose the claimed invention wherein Liotine further discloses the routine of generating a new common key (See Col. 4, lines 40-51).

Regarding claim 33, Liotine et al. disclose the routine of generating comprises a sub-routine of transmitting a command (via programming signal) to generate the common key to another object. (See Col. 5, lines 30-40)

Regarding claim 34, Liotine et al. disclose a routine of transmitting a new common key (via light emitting diode 36) to another object. (See Col. 4, lines 40-61)

Regarding claim 37, the combination of Liotine et al., Marino, and Heitschel et al. disclose the structural elements of the claimed invention, wherein Heitschel discloses the routine of verifying for a given pairing is implemented only when the first command is transmitted (See Col. 3, lines 46-50).

Regarding claim 38, Liotine et al. disclose a routine of generating of a new common key (via light emitting diode 36). (See Col. 4, lines 40-61)

Regarding claim 39, Liotine et al. disclose the routine of generating comprises a sub-routine of transmitting of a command (via programming signal) to generate the common key to another object. (See Col. 5, lines 30-40)

Regarding claim 40, Liotine et al. disclose a routine of transmitting of a new common key to another object (via light emitting diode 36). (See Col. 4, lines 40-61)

Regarding claim 42, Liotine et al. disclose a bidirectional object (via receiver 30), having a receiving stage (via RF receiver 32); a transmitting stage (via programming signal transmitter 36); a logical unit (via microcomputer 33) controlling the receiving stage and the transmitting stage; and a memory logically connected to the logical unit (via memory 34). (See Figure 3)

Liotine et al. in view of Heitschel et al. and Marino (See rejection on claim 30 above) further disclose programmable routines for a bidirectional object adapted to store at least one common key and at least one piece of information on pairing, said program comprising: a routine adapted to receive a new common key; a routine adapted to receive a command; a routine adapted to verify a command received from a paired transmitter object of the presence of the common key in the transmitter object; and a routine adapted to refuse execution of the command if the verification is negative.

But the combination of Liotine et al., Marino and Heitschel et al. failed to disclose the programmable routines are programmed and stored on a memory.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to program the routines and store them on a memory in order to execute them on the receiver.

Regarding claim 44, the combination of Liotine, Marino, and Heitschel discloses the claimed invention wherein Liotine discloses the pairing of paired objects are suspended during the step of providing the new common key (inherent, when the new code is generated in the receiver 30, the transmitter 9 is no longer paired with the receiver 30) and become valid again upon confirmation that the paired objects contain the new common key (via transmitter 9 receiving new code from receiver 30, See Col. 4, lines 40-61 and Col. 5, lines 30-34).

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2. Claims 25, 28, 35, 41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. in view of Heitschel et al. and Marino as applied to claims 22, 30, and 36 above, and further in view of Clark et al. (US 5,148,159).

Regarding claim 25, the combination of Liotine et al., Marino, and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose the step of transmission comprises a point to multipoint transmission.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al., Marino, and Heitschel et al. to include the step of transmission comprising a point to multipoint transmission in order to increase the number of available objects for operation.

Regarding claim 28, the combination of Liotine et al., Marino, and Heitschel et al. disclose a point-to-point transmission (via light emitting diode 36 to programming receiver 21) in a sub-group of the objects (See Liotine et al., Col. 4, lines 40-61) but failed to disclose a point to multipoint transmission to another sub-group of the objects.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches

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the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include a point to multipoint transmission to another sub-group of the objects in order to increase the number of compatible objects for operation.

Regarding claim 35, the combination of Liotine et al., Marino, and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose a routine of transmitting a new common key to more than one object.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include transmitting a new common key to more than one object in order to increase the number of available objects for operation.

Regarding claim 41, the combination of Liotine et al., Marino, and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose a routine of transmitting a new common key to several other objects.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches

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the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include transmitting a new common key to several other objects in order to increase the number of available objects for operation.

Regarding claim 43, the combination of Liotine, Marino, and Heitschel did not specifically disclose the new common key is provided globally to all the objects of the installation, without consideration of the pairings.

Clark teaches a remote control system with teach/learn setting of identification code. The remote controls system employs identification codes for security. The identification codes may be taught to plural portable units. (See the Abstract)

From the teachings of Clark, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine and Heitschel to include the new common key is provided globally to all the objects of the installation, without consideration of the pairings as taught by Clark to allow multiple portable devices to operate the remotely controlled system.

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. in view of Heitschel et al. and Marino as applied to claim 22 above, and further in view of Little et al. (US 7,046,991).

Regarding claim 29, the combination of Liotine et al., Marino and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose when the

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new common key of an object is transmitted to another object, verification that the two objects contain the old common key.

Little et al. teach a system and method for supporting multiple certification authorities on a communication device. The certification authority provides keys to a mobile device to encrypt information for communication, if the new key generated is not stored properly by the mobile device, then the old key may be used to generate a new key for communication. (See the Abstract and Col. 4, lines 13-38)

From the teachings of Little et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Litotine et al. and Heitschel et al. to include when the new common key of an object is transmitted to another object, verification that the two objects contain the old common key in order to provide a backup in case the new common key generated was not stored properly and operation is not possible.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG HANG JIANG whose telephone number is (571)270-3024. The examiner can normally be reached on M-F 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. J./
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612